Our ref: KON-1807 Client's ref: P6179-001-0000



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: H. YANAGISAWA : Art Unit: 1752

Serial No.: 10/631,910 :

Examiner: T. Chea

Filed : July 31, 2003 :

Title : THERMALLY DEVELOPABLE

PHOTOSENSITIVE MATERIAL AND IMAGE FORMING METHOD:

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## DECLARATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

I, Hiroyuki Yanagisawa, hereby declare and say as follows:

1. I presented the Declaration dated December 21, 2004 in this application.

2. I am aware that the Examiner has rejected this application based on Nishijima '101 (EP 1278101), Nishijima '649 (US 6,699,649), PS '266 (GB 1543266), Oya (US 6,376,166) and Yoshioka (US 6,413,712). Tests have been performed and are reported herein to demonstrate that a superior image is produced and the claimed coefficient of determination R<sup>2</sup> is satisfied when the light-sensitive material has a reducing agent of Formula (A-1), a reducing agent of Formula (A-3), and a compound of Formula (A-4). These tests were performed by myself or under my supervision and control.

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- 3. Sample A was prepared in accordance with Sample 110 of Table 2 in col. 83 of Nishijima '649 as described in col. 81, lines 63-67 of Nishijima '649. Sample A contained 27.98 grams (col. 80, lines 9-11 of Nishijima '649) of developing agent 1-24 appearing in col. 27 of Nishijima '649. Developing agent 1-24 falls within the scope of Formula (A-1) of the present application.
- 4. Sample B was prepared in a similar manner to Sample A, except that 4.20 grams out of the 27.98 grams of developing agent 1-24 was replaced by 4.20 grams of developing agent 1-3 appearing in col. 24 of Nishijima '649. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio

- of 0.02 mol per total mols of the developing agents (1-3 and 1-24). Developing agent 1-24 falls within the scope of Formula (A-1), developing agent 1-3 falls within the scope of Formula (A-3), and compound (II-3) falls within the scope of Formula (A-4) of the present application.
- 5. Sample C was prepared in a similar manner to Sample A, except that developing agent 1-24 was replaced by 27.98 grams of developing agent (f) in Example 1 on page 22 of PS '266. Developing agent (f) falls within the scope of Formula (A-1) of the present application.
- 6. Sample D was prepared in a similar manner to Sample C, except that 4.20 grams out of the 27.98 grams of developing agent (f) was replaced by 4.20 grams of developing agent 1-3 appearing in col. 24 of Nishijima '649. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio of 0.02 mol per total mols of the developing agents (1-3 and (f)). Developing agent (f) falls within the scope of Formula (A-1), developing agent 1-3 falls within the scope of Formula (A-3), and compound (II-3) falls within the scope of Formula (A-4) of this application.

- 7. Sample E was prepared in a similar manner to Sample 201 of Table 2 in col. 89 of Oya, except that phenol compound I-1 was replaced by 160 grams (col. 86, lines 3-4 of Oya) of phenol compound E illustrated in the attachment to this Declaration. Phenol compound E falls within the scope of Formula (A-1) of the present application.
- 8. Sample F was prepared in a similar manner to Sample E, except that 24 grams out of the 160 grams of phenol compound E was replaced by 24 grams of developing agent 1-3 appearing in col. 24 of Nishijima '649. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio of 0.02 mol per total mols of developing agents (developing agent 1-3 and phenol compound E). Phenol compound E falls within the scope of Formula (A-1), developing agent 1-3 falls within the scope of Formula (A-3), and compound (II-3) falls within the scope of Formula (A-4) of the present application.
- 9. Samples A-F were exposed and developed in the manner described beginning on page 204, par. 3 of this application. U\*, v\* and a\*, b\* were calculated and plotted to determine the regression line and the coefficient of determination  $\mathbb{R}^2$  in the manner described beginning on page

206, par. 2 of this application. Samples A-F were anatomically and physically evaluated in the manner described on page 207, par. 1 of this application. The coefficients of determination  $R^2$  and the evaluation results are shown in the Table attached to this Declaration.

- 10. As shown in the attached Table, Samples B, D and F which have a reducing agent of Formula (A-1), a reducing agent of Formula (A-3), and a compound of Formula (A-4) received higher anatomical evaluation results and higher physical evaluation results compared to Samples A, C and E which do not have a reducing agent of Formula (A-3) or a compound of Formula (A-4). In addition, Samples B, D and F have a coefficient of determination R<sup>2</sup> within the range claimed in this application, while Samples A, C and E have a coefficient of determination R<sup>2</sup> outside the claimed range.
- 11. I believe that this Declaration demonstrates that a superior image is produced and the claimed coefficient of determination R<sup>2</sup> is satisfied when the light-sensitive material has a reducing agent of Formula (A-1), a reducing agent of Formula (A-3), and a compound of Formula (A-4). I believe that this superiority is surprising and unexpected because the cited references do not teach or suggest that

an improved image is produced when a reducing agent of Formula (A-3) and a compound of Formula (A-4) are added to a light-sensitive material having a reducing agent of Formula (A-1). In addition, I believe that this superiority is surprising and unexpected because the cited references do not teach or suggest the criticality of the claimed coefficient of determination  $R^2$ .

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the U.S. Code; and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.

Hiroyuki Yanagisawa

Dated: This 18th day of Jahvan, 2006.

Attachment

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R2	0.891	1,000	0.882	1.000	0.725	1 000
Image quality					L	
Anatomical	77	92	75	00	74	6
evaluation						
Physical	79	91	9/	06	75	0
evaluation						
Remarks	Comp.	lnv.	Comp.	Inv.	Comp.	Jnv.

Sample No. 110 of US6699649 (Nishijima)

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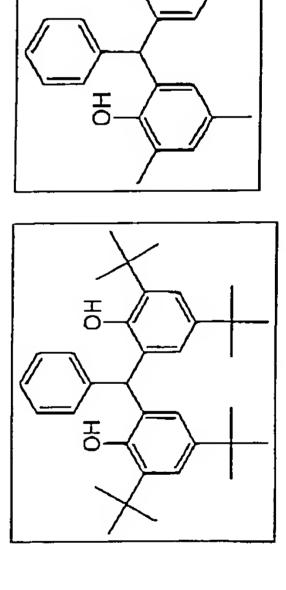
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t 1-3 and 23.78 g of Developing Agent 1-24 were employed instead of Compound (II-3) described in Column 11 in US6413712 (Yoshioka) was added in the ratio of 0.02 mol to mol of Developing Agent (the total of 1-24 and 1-3:) In Sample A, 4.20 g of Developing Agent 27.98 g of Developing Agent 1-24, and (

Developing Agent 1–24. In Sample C, 4.20 g of Developing Agent 1–3 described in US6699649 and 23.78 g of Developing Agent (f) were employed In Sample A, Developing Agent (f) described in Example 1 of GB1543266 was employed instead of 27.98 g of

was added in the ratio of 0.02 mol to mol of Developing Agent (the total of Developing Agent (f) and Developing Agent 1-3). instead of 27.98 g of Developing Agent (f), and Compound (II-3) described in Column 11 in US6413712(Yoshioka) 160 g of following Phenol compound E was employed instead of Phenol compound (1-1) in Sample 201 Oya) described in Example 2 of US6376166 (

Developing Agent (the total of Phenol compound E and Developing Agent 1-3). 1-3 described in US6699649 and 136 g of Phenol compound E were employed and Compound (II-3) described in Column 11 in US6413712(Y0shioka) was instead of 160 g of Phenol compound E, In Sample E, 24 g of Developing Agent 1 added in the ratio of 0.02 mol to mol of



Developing Agent (f)

Phenol compound E